Amendments to the Specification

Please amend the paragraphs as follows:

Page 1, lines 15 to 26;

[0002] Conventionally, ischemic heart diseases are generally treated by percutaneous transluminal cornary angioplasty (PTCA), that is, a procedure of introducing a balloon catheter to, for example, a narrowed part through a lumen of a blood vessel and, after that, inflating a balloon with liquid such as normal saline solution. However, this procedure has a problem of high ~~possibilities~~ possibility that an acute phase block of a coronary artery is caused and that the portion treated by PTCA is narrowed again (so-called post-PTCA restenosis). To solve the problem, intraluminal graft called stent has been developed. The stent recently rapidly came into practical use and are in widespread use. According to recent data, nearly 75% of procedures using balloon catheters have been already replaced by procedures using stents.

Page 2, lines 14 to 28;

[0004] Through the spread of procedure using stent, restenosises have been dramatically prevented. On the other hand, however, since metallic stent matrixes are foreign substances in human body, a metallic stent matrix may ~~thrombose~~ thrombi a patient after several weeks from insertion of the metallic stent matrix. This is because the metallic stent itself is exposed to blood, resulting in adsorption of blood proteins such as fibrinogen and adherence or agglutination of blood platelets, thus forming thrombus. Further, thrombus may be formed because blood platelets are agglutinated on the convexes and concaves of a skeleton of the metallic stent matrix. Intimal thickening of a blood vessel due to cytokine discharged from blood platelets agglutinated on the periphery of the metallic stent matrix has been also pointed out as

a problem. Accordingly, JP H11-299901A discloses to coat an outer periphery of a metallic stent matrix with a flexible polymer film having a number of fine pores.

Page 4, lines 1 to 17;

[0008] (1) According to the stent of JP H11-299901A, the outer periphery of the metallic stent matrix is covered by a flexible polymer film having fine pores so as to engraft endothelium on the surface of the film on the outer periphery of the stent matrix, thereby reducing the causing of thrombus formation. However, in the stent of JP H11-299901A, the inner periphery of the stent matrix is not covered with the polymer film so that the metallic stent matrix is exposed. There is still a problem of causing thrombus, allergic to metal, stimulus of tissues due to metal, and rust development. Since the inner periphery of the stent has convexes formed by stent struts composing the stent matrix, the convexes disarrange bloodstream, facilitating the formation of ~~thrombuses~~ thrombi. The formed ~~thrombuses~~ thrombi exfoliate and move downstream (travels peripherad through the bloodstream) so as to cause infarction in small blood vessel on the downstream side or platelet-derived growth factor discharged from blood platelets in the ~~thrombuses~~ thrombi to stimulate to cause thickening. Therefore, the problem of causing intimal thrombus is serious at this portion.

Page 5, lines 5 to 14;

[0011] In JP H11-299901A, the polymer film 19 has fine pores which are arranged to be spaced substantially equally. The purpose of the formation of fine pores is inhibiting formation of ~~thrombuses~~ thrombi and intimal thickening by grafting endothelial cells on the inner wall of the stent. Therefore, it is believed that the pores are formed at positions other than the position

directly above the stent skeleton. When the polymer film is shifted relative to the stent matrix during expansion of the stent, however, the fine pores may be occluded by the stent struts. If the fine pores are occluded, the arrangement design of the fine pores becomes worthless.

Page 6, lines 17 to 22;

[0014] It is an object of the first invention to overcome the problems of the stent of JP H11-299901A and to provide a stent in which a stent matrix is covered by a polymer layer with improved adhesion, thereby more securely preventing formation of ~~thrombuses~~ thrombi and overcoming a problem of drift between the stent matrix and the covering layer.

Page 10, lines 15 to 20;

[0033] Since the polymer films cover not only the outer peripheries but also the inner peripheries of the stent matrixes in the stent of the fifth invention, the formation of thrombus can be inhibited well. The stent of the fifth invention comprising a plurality of stent matrixes is excellent in bendability because the portions between adjacent stent matrixes can be flexibly bent.

Page 13, lines 1 to 2;

Fig. 6 is a schematic sectional view of a stent of JP H11-299901A, showing a state coated with a polymer film;

Page 25, lines 5 to 13;

[0078] As shown in Fig. 1, in the stent, ~~in which~~ the entire surfaces of lattice-like struts 11 of the stent matrix are coated with the polyurethane polymer layer 12 with well adhesion. It is found that, even when the stent skeleton is moved according to the expansion of the stent matrix, the polyurethane polymer layer

follows this movement, thus maintaining the positional relationship between the polymer layer and the stent. It is also found that the projecting structure of the stent struts as a factor of blocking bloodstream is laminated by the polymer film so as to have a flat and smooth surface.

Page 50, line 21 to page 51, line 7;

[0182] The space between the outer polymer film and the inner polymer film can be filled with such a filler by the following method. That is, in the production of the stent according to the aforementioned example method, the stent matrixes are sandwiched between two tubular polymer films and the outer polymer film 52 and the inner polymer film 53 are heat-sealed to each other only at one end on a side of the stent matrix 10 positioned at the rearmost end so as to form an envelope-like pocket portion. The filler is injected into the pocket portion and the outer polymer film 52 and the inner polymer film 53 are heat-sealed to each other at a portion between adjacent stent matrixes 10. This operation consisting of injection of the filler and the heat sealing is repeated sequentially, thereby filling the space between the outer polymer film and the inner polymer film ~~can be filled~~ with the filler. It is possible to change the kind of filler <u>for</u> every envelope-like pocket <u>portion</u> so as to use several kinds of fillers.

Page 53, lines 9 to 17;

[0191] As described concretely, a tube having an outer diameter of 3.8 mm and made of thermoplastic polyurethane resin (MIRACTRAN E980; available from Nippon Miractran Co., Ltd.) was overlaid on a mandrel in which SUS440 portions having an outer diameter of 3.5 mm and a length of 1 mm and PTFE portions having a length of 7mm were alternately arranged without irregularities and ~~was~~ <u>were</u> kept in a refrigerator at 4°C. Three stent matrixes 10

were aligned with intervals of about 1 mm and the mandrel with the resin tube was inserted into the stent matrixes 10.

Page 53, line 28 to page 54, line 13;

[0193] In this manner, in the order from the outside, the resin tube of 4.3 mm in outer diameter, the three stent matrixes, the resin tube of 3.8 mm in outer diameter, the mandrel in which the SUS440 portions of 3.5 mm in outer diameter and 1 mm in length and the PTFE ~~portiona~~ portions of 7 mm in length are arranged alternately without irregularities were laminated. By using a mold having a structure capable of pressing the films at the portions between adjacent stent matrixes 10 and 10 and at both end portions in this state, the outer polymer film 52 and the inner polymer film 53 were heat-sealed only at portions between adjacent stent matrixes 10 and 10 and at both end portions in the mold, thereby overlaying the outer polymer film on the outer peripheries of the stent matrixes and overlaying the inner polymer film on the inner peripheries of the stent matrixes. The interval between adjacent stent matrixes was set to 1.0 mm.

Page 56, lines 7 to 14;

[0201] Though only one stent matrix 10 is coated with the polymer films 62, 63 so as to form the stent 61 in Fig. 18a, a plurality of stent matrixes, for example, from 2 to 10, preferably from 2 to 5 ~~stent matrixes~~ may be aligned in the longitudinal direction thereof such that the interval formed between adjacent stent matrixes is from about 0.1% to 1000%, preferably from 1% to 500%, of the diameter of each stent matrix and the stent matrixes are united by the outer polymer film and the inner polymer film.

Page 58, lines 4 to 19;

[0208] In the seventh invention, the bonded portions are not necessarily formed in all of the stent slots and may be formed in some of the stent slots 61B. For example, the bonded portions may be formed in one stent slot apart or two stent slots apart not to form bonded portions in both the adjacent stent slots. As described in the above, the bonded portions thus formed may be perforated by laser. By providing such pores, the engraftment of endothelium of the blood vessel can be promoted as described in the above. For forming such pores, for example, a pore about 30 μm in diameter may be formed at substantially the center of the dot-like bonded portion of 50 μm in diameter. Alternatively, double wave mixed laser consisting of a YAG laser having a wavelength of 1064 nm which is throttled to be 50 μm and a quadruple-frequency YAG laser having a wavelength of 266 nm which is throttled to be 30 μm is used during the formation of dot-like bonded portions of 50 μm in diameter, thereby conducting the bonding and perforating at one time.